Mine 213 Refuse
Proposed AML Reclamation Project
Letcher County
Project Description and Workplan
Revised March 2006

The proposed project (15.2 acres total) will remove and reclaim an existing coal refuse pile located in eastern Letcher County near the community of McRoberts. The coal refuse area was created in the 1930s – 1940s from underground workings within the Elkhorn No. 3 coal bed. The proposed reclamation project area is located in an unnamed tributary of Wright Fork, more particularly, behind the Moore's Chapel Church and across the street from an elementary school and Catholic Church. The existing coal refuse pile is a potential fire hazard, an environmental threat, and possible source of stream pollution in Wright Fork.

Based on drillings conducted by Premier Elkhorn Coal Company, the existing coal refuse pile contains an estimated 703,968 yd^3 of total material with an approximate percentage of recovery of 34% or 239,349 yd^3.

VOLUME CALCULATIONS

Company Name: **Premier Elkhorn Coal Company**
Project Number: **Mine 213 Slate Dump**
Project Area: **Unnamed Tributary of Wright Fork**

Elevation (ft.)	Area (ft.)	Volume (ft^3)	Volume (yd^3)	Cumulative Volume (yd^3)
1400	0			
		1,464,625	54,245	54,245
1450	58,585			
		5,164,550	191,280	245,525
1500	147,997			
		6,968,825	258,105	503,630
1550	130,756			
		4,601,650	170,431	674,061
1600	53,310			
		716,030	26,520	700,581
1620	18,293			
		91,465	3,388	703,968
1630	0			

The surface area for which the refuse pile and access road is located is owned by Pike-Letcher Land Company, a subsidiary of TECO Coal, Inc. and a sister company to Premier Elkhorn Coal Company (Premier). Premier will be conducting the refuse removal operations and their mailing address is P.O. Box 130, Myra, Kentucky 41549. Premier has numerous surface and underground mining operations located in Pike and Letcher counties. Premier proposes to remove the refuse material from the above referenced site under an AML Enhancement Rule Project pursuant to a cooperative agreement with the Kentucky Department for Natural Resources. Once removed, the refuse material will be trucked to Premier's preparation plant located at the community of Myra in Pike County. After the marketable coal has been separated out, the waste material will be placed within Premier's refuse/waste disposal site located adjacent to the preparation plant. The preparation plant is permitted under permit #898-8076 and the associated refuse disposal area is permitted under permit #898-9072.

The existing refuse pile extends from the upper reaches of an unnamed tributary of Wright Fork down to Wright Fork Stream. The toe area of the refuse pile is exposed at the intersection with Wright Fork Stream and continuously erodes into the stream during heavy rainfall events. Furthermore, a large impounding depression exists in the back of the refuse pile that fills with water during excessive rainfall events and seeps into the refuse pile. This in itself is reason for concern due to potential instability created from water seepage into the refuse pile. During previous site inspections, a high water mark clearly indicated the depression had been recently holding water. In addition, water is seeping from the toe area of the refuse pile at the intersection with Wright Fork Stream located directly behind the Moore's Chapel Church. Upon conducting final site inspections, during dry periods of the season (winter), no signs of seepage were present within or adjacent to the refuse pile area and the depression was not holding water. Thus, it's concluded that the seepage previously present was due to the impoundment of water within the previously described depression. There are no visual signs of degraded water quality; however, no samples were taken during the previous site inspections to verify water quality and an attempt to collect samples during the final site inspection was not successful, as no discharges were present during the sampling attempt.

If the removal and reclamation of the above referenced refuse pile is approved, the following work plan will be followed by Premier:

(A) Access

Access to the refuse fill area will be obtained by utilizing Masters Branch road that leads to the existing pre-law Elkhorn #3 mine bench. Once the level of the Elkhorn #3 mine bench is reached, the bench is existing all the way to the refuse fill area. Upgrades will be necessary in order to properly construct a road along Masters Branch and the existing mine bench.

Masters Branch road upgrades

The upgrading of Masters Branch road will begin with grading of the roadbed to obtain a smooth surface and to obtain a proper/safe grade for the anticipated traffic. Next, diversions will be created, or if diversions are existing, necessary maintenance will be performed. Once the desired road grade and drainage is obtained, necessary culverts will be installed within the locations illustrated on the attached design drawing. (Note: Some culverts are currently existing and will remain in-place.) The culverts to be installed will be corrugated metal pipes or the equivalent there of. The final upgrading process will involve the application of surfacing material. The surfacing material will consist of gravel and/or crushed stone.

Mine bench road upgrades

The upgrading of the existing mine bench will begin with grading of the bench in order to create the desired width and final elevation of the roadbed. The roadbed will be constructed in such a manner as to have the final grade of the road to be located above the existing abandoned underground workings within the Elkhorn #3 coal seam within areas for which a discharge is evident and within areas for which the desired road width cannot be obtained without creating a discharge. Site inspections revealed evidence that ample material was available for 'building-up' of the roadbed in areas necessary to obtain the final desired elevation. In areas for which a discharge is evident, the spoil material covering the underground workings will be removed in order to insert a 'discharge pipe'. The 'discharge pipe' will be a metal pipe of approximately 8 inches in diameter placed within the underground works at the water elevation level and traverse beneath the roadbed and exit onto the downslope. The 'discharge pipe' will only

transmit water during periods of elevated water levels within the underground works. The main purpose of the 'discharge pipe' will be to eliminate wet/muddy conditions within the roadbed that would cause problems during normal hauling operations. The discharge areas evident during a recent site inspection are shown on the attached design drawing, however, additional areas may be revealed during field operations that require the installation of a 'discharge pipe'. Adverse effects associated with cutting into the abandoned underground workings are not anticipated, as road construction should be successful without the need to remove material covering the underground works. However, if the underground workings were accidentally breached, a sump would be constructed to catch the drainage and to allow the water to exit the area in a controlled manner until such time as the breach is repaired.

Once the final desired roadbed elevation is obtained the roadbed will be graded to create a smooth surface and to create a berm on the outslope. The berm will eliminate runoff from the site and will provide safety for the traffic utilizing the road. Once grading is completed, diversion ditches and culverts will be placed in accordance with the attached design drawing. However, based on field conditions, the culverts locations and drainage patterns may be altered slightly. Additionally, a sediment trap will be constructed on either side of the inlet end of each culvert in order to prevent excessive sediment fines from leaving the site. Once the drainage features are constructed and in-place, surfacing material will be placed on the roadbed. Surfacing material will consist of gravel and/or crushed stone.

The access road will be maintained throughout the life of the project and dust will be controlled by watering methods. The watering method will include the utilization of water trucks. Watering of the access road will be less extensive near the entrance to the state highway in order to prevent the tracking of excessive debris onto the roadway.

(B) Water Supply Issues

There are currently two (2) residences acquiring domestic water supplies from the abandoned underground workings within the Elkhorn #3 coal seam. The supply lines currently run across the existing mine bench and enter the abandoned works. The water supplies will be rerouted through one of the 'discharge pipes' discussed above. A 2 inch line will be inserted into the 'discharge pipe(s)' with the end submerged approximately one-half to three-quarters of the way into the impounded water. Upon exiting the 'discharge pipe' on the downslope side, the inserted line will be connected to the currently existing water supply lines.

(C) Operations Plan

Drainage from the recovery operation will be initially controlled by utilizing an existing depression located within the back of the refuse pile area. Initial recovery will begin by removing the two (2) knobs of refuse that extend outward into the watershed from the northeast side of the unnamed tributary. Once the knobs have been removed, the removal operation will continue in 5 to 15 foot lifts with the work area consistently sloped to the back. A depression/sump area will be maintained at the back at all times in order to control runoff. If deemed necessary during removal operations, a series of sumps/sediment traps will be constructed on either side of the work area to control runoff. Other devices that may be used to control runoff may include silt fences, and hay/straw bales. Additionally, as the work area begins in different lifts, a berm (approximately five feet in height) will be maintained at the front of the work area. As the material is removed, the berm will be pulled back with an excavator and maintained for material removal on the following lift, as the process is repeated. This process will allow for complete removal of the refuse pile with minimal disturbance of the refuse pile

outslope at any given time. Basically, the refuse pile will be worked from within itself. As the refuse pile lowers in elevation, the front berm would be pulled inward and lowered simultaneously until the valley floor is reached.

Any concrete debris found on the refuse removal area by Premier will be pulverized, buried, and covered with graded refuse and cover material. Premier will dispose of metal debris and any trash encountered within the refuse area in an off-site approved landfill.

As initially noted, the existing coal refuse area was created by underground workings within the Elkhorn No. 3 coal bed. Upon review of available mine maps of the previous underground mining operation it is revealed that the existing refuse pile was placed by the utilization of belt line(s). The maps showed no indication of a portal/punch-out within the watershed for which the refuse material is located. Evidence on the mine maps show that the refuse material was most likely belted to its existing location from an adit or series of adits located adjacent to the final storage area. Even though this is believed to be the case, the operator conducting the removal operation will utilize caution when removing the refuse material located at the Elkhorn #3 elevation to ensure that no adit exists and if water is encountered it will be allowed to bleed off slowly and will be directed to a sediment control basin/depression area (if necessary, one will be constructed) prior to entering the local stream channel. Once the water has been removed, removal operations will continue. Additionally, if water is encountered it will be allowed to discharge and free flow unless determined that the area needs to be re-sealed in order to maintain existing domestic water supplies.

During the removal process excessive dust production will be controlled by the utilization of watering trucks. This dust control measure will be conducted within the removal site, access/haul road(s), and any place deemed necessary by the Division of Abandoned Mine Lands.

Once all refuse has been removed from the project area, a diversion will be constructed that will follow the natural drainage pattern of the watershed and will place 'boulder clusters' throughout the length of the diversion in order to decrease the flow velocity prior to entering the stream channel. Additionally, the final drainage diversion will be constructed in such a manner as to enter the local stream channel in a 'downstream' direction. This will be done in order to avoid water leaving the area and entering the stream channel in a direct path toward the church located on the other side of the stream. If necessary, a rock deflector device will be placed where the re-constructed diversion enters the stream channel.

All refuse removal will be conducted between the hours of 6:00 a.m. and 6:00 p.m. Monday through Saturday, unless an emergency warrants the changing of the scheduled work hours. If emergency refuse removal is warranted, Division of Abandoned Mine Land personnel will be notified in advance of such removal. Refuse removal will not occur until DAML gives prior approval unless the emergency constitutes a direct and imminent threat to public health and safety.

(D) Reclamation

As refuse recovery operations are completed in any given area not to be redisturbed, the area will be scarified, limed, topsoiled or alternate topsoiled, then seeded and mulched according to the revegetation plan. Necessary topsoil material will be obtained from the sides of the removal area at elevations below the existing refuse area and/or from the material available along the access road. See the attached design drawing for

locations of available topsoil. If the original topsoil located at the original groundline proves to not have been contaminated by the refuse material, alternate topsoil material will not be necessary. Upon completion of refuse recovery operations, all disturbed areas will be revegetated so as to prevent erosion and establish a suitable post reclamation land use, compatible with future anticipated uses by the community of McRoberts. The areas to be revegetated may require lime application to neutralize any acidic or barren spots or to promote vegetative growth. Location and rates of lime application will be determined by DAML.

The coal refuse removal area includes an approximate 500 feet length of the southern bank of Wright Fork. No equipment will operate in the waters of Wright Fork without Division of Water and Corps of Engineers approval, and the Wright Fork stream channel will not be excavated without appropriate authorizations.

If Premier Elkhorn Coal Company should abandon this proposed coal refuse removal operation prior to all refuse being removed, then the disturbed area(s) will be revegetated in accordance with this plan prior to leaving the site. Additionally, proper drainage will be provided prior to leaving the site. If the refuse material located at the local stream bank cannot be removed, due to the material being inaccessible without disturbances to the local stream channel, then this refuse material will be armored with rock material in order to prevent erosion of the refuse material.

REVEGETATION PLAN
MINE 213 REFUSE AML PROJECT

Fertilizer 500# of 18-46-0 and 200# of 0-0-60 per acre
Ag-Lime 5 tons per acre

Seed Mixture	Seeding Rate (lb./ac. PLS*)

SPRING SEED MIX
Application Period: February 15 to June 15

Creeping Red Fescue	20
Redtop	5
Orchardgrass	20
Birdsfoot Trefoil	10
Korean Lespedeza (Hulled)	10
Medium Red Clover	10
Ladino Clover	5
	80 LBS.

SUMMER NO SEEDING
Application Period: June 16 to August 14

FALL SEED MIX
Application Period: August 15 to February 14

Creeping Red Fescue	20
Perennial Ryegrass	10
Orchardgrass	15
Timothy	10
Birdsfoot Trefoil	10
Ladino Clover	5
Medium Red Clover	10
	80 LBS.

plus 1 bushel/acre Soft Red Winter Wheat as cover crop

*PLS – Pure Live Seed is determined by multiplying the percent germination of the seed times the percent purity. Then, dividing this product into the specified rate yields the application.

Example: Germination Rate = 70%
Purity = 90%
Rate = 50 lbs. PLS/acre
.90 x .70 = .63

Seed required = $\frac{50 \text{ lbs. PLS}}{.63}$ = 79 lbs/acre

Tree planting

Tree planting shall be accomplished between February1 and April 15. Trees shall consist one or two year old seedlings of **1,500 Northern Red Oak** and **1,000 Green Ash**. Trees will be planted by DAML. This will be considered the AML contribution to the site reclamation and will allow the project to qualify for the exemption to permitting requirements for government financed construction projects. Tree roots will be pruned to no less than six inches. Planting shall be accomplished by dibble bar or similar tool and healing-in method. Trees shall be distributed evenly over the site.